

**National EPA-Tribal Science Council (TSC)
Conference Call Roll Call and Key Discussion Points
Monday, August 17, 2020
2:00–3:30 p.m. EDT**

Roll Call

Tribal Caucus

- ☐ Region 1: William (Billy) Longfellow
(Passamaquoddy at Sipayik)
- ☐ Region 1 *Alternate*: Trevor White
(Passamaquoddy Tribe of Indian Township)
- ☒ Region 2: Neil Patterson (Tuscarora Nation),
Chair
- ☐ Region 3: Vacant
- ☒ Region 4: Katie Tiger (Eastern Band of
Cherokee Indians)
- ☐ Region 4 *Alternate*: Jerry Cain (Mississippi
Band of Choctaw Indians)
- ☐ Region 5: Vacant
- ☒ Region 6: Craig Kreman (Quapaw Tribe)
- ☐ Region 6 *Alternate*: Vacant
- ☒ Region 7: Page Hingst (Santee Sioux Nation of
Nebraska)
- ☒ Region 7 *Alternate*: Misha Mazurkewycz (Ponca
Tribe of Nebraska)
- ☐ Region 8: Joshua Tweeton (Spirit Lake Tribe)
- ☐ Region 8 *Alternate*: Allyson Two Bears
(Standing Rock Sioux Tribe)
- ☒ Region 9: Shasta Gaughen (Pala Band of
Mission Indians)
- ☐ Region 9 *Alternate*: Crystal Robinson (Quartz
Valley Indian Reservation)
- ☒ Region 10: Lee Juan Tyler (Shoshone-Bannock
Tribes)
- ☐ Region 10 *Alternate*: Kelly Wright (Shoshone-
Bannock Tribes)
- ☐ Region 10 (Alaska): Alexis Wagner (Metlakatla
Indian Community)

EPA Caucus

- ☐ Region 1: Vacant
- ☒ Region 2: Kai Tang
- ☐ Region 3: Regina Poeske
- ☒ Region 4: Dawn Taylor
- ☐ Region 5: Vacant
- ☐ Region 5 *Alternate*: Carole Braverman
- ☐ Region 6: Alexandra (Alexa) Olson
- ☒ Region 7: Christopher (Chris) Taylor
- ☐ Region 7 *Alternate*: Amber Tilley
- ☐ Region 8: Monia Ben-Khalid
- ☒ Region 8: Justin Bleiler
- ☒ Region 9: Rebecca Jamison
- ☒ Region 10: Lon Kissinger
- ☒ AIEO: Francine St. Denis
- ☒ OAR: Amanda Kaufman
- ☐ OCHP: Ted Coopwood
- ☐ OCSPP: Karen Hamernik
- ☐ OCSPP *Alternate*: Amanda Hauff
- ☒ OLEM: David Charters
- ☒ OMS: Beth Jackson
- ☒ ORD: José Zambrana, Chair
- ☒ ORD: Brenda Rashleigh
- ☒ OW: Kate Graf

Support Personnel and Invited Guests

- ☒ Monica Rodia, TSC Executive Secretary
- ☒ Richard Callan, EPA ORD OSAPE
- ☒ Althea Godfrey, EPA Region 10
- ☒ Sherri Hunt, EPA ORD AERP
- ☒ Hari Karne, EPA ORD/ORAU Student
Contractor
- ☒ Catherine Karr, University of Washington
- ☒ Kristen LeBaron, Support Contractor (SCG)
- ☒ Orly Stampfer, University of Washington

Action Items

1. TSC members will read the monthly teleconference minutes to ensure that they are aware of current activities, news and action items.

Key Discussion Points

Roll Call and Distribution of Meeting Minutes

- Monica Rodia took the roll and explained that the July meeting minutes had been finalized and distributed.
- TSC members should read the minutes each month to ensure that they are aware of current activities, news and action items.

Caucus Report Outs

- Neil Patterson reported that during the recent Tribal Caucus meeting, the members had described their tribes' current COVID-19 actions, and Katie Tiger had shared interesting COVID-19 statistics from the Eastern Band of Cherokee Indians. The Tribal Caucus also was given a brief update on the outreach for the Indigenous research methodology plan and discussed remote air-monitoring sensors. Shasta Gaughen added that she had presented about the TSC's Indigenous research methodology efforts to Region 9 and received a suggestion to contact tribal epidemiology centers. The Region 9 conference is planned for several sessions on select days during a 2-week period in October.
- José Zambrana reported that the EPA Caucus had met the previous week and discussed ongoing activities, including engagement on the Indigenous research methodology plan and continuing work on the systematic review of aquatic food consumption. José noted that he follows the activities of the PFAS Tribal Working Group and those related to the EPA PFAS Action Plan. Monica acknowledged the partners in the Region 10 office.

Science Seminar: Using Low-Cost Sensors to Address Air Quality Concerns on the Yakama Reservation: A Collaborative Research Partnership Approach, Catherine Karr and Orly Stampfer, University of Washington

- Catherine Karr and Orly Stampfer are Science To Achieve Results (STAR) grantees through EPA's Air and Energy Research Program. Their research project is called "Next Generation Sensors and Scientists" (NextGenSS).
- The goals of the 3-year project are to develop an adaptable web-based air pollution curriculum; equip students to generate, use and apply data from air pollution monitoring equipment; evaluate sensor effectiveness in community studies; identify effective mechanisms for dissemination of collected data; understand local wood-smoke and air-quality concerns; and facilitate community-based research that may benefit the region and be an example to share with others.
- The project was initiated because air pollution is a concern within the lower Yakima Valley. Wood burning is believed to be an important contributor to pollution, but agricultural sources also are of concern. The effects of these sources often are highly localized and not well-captured through the regulatory and nonregulatory monitoring processes that were in place.
- The Yakama Nation and University of Washington developed their partnership through leveraging their strengths, which included the Heritage University EnvironMentors Program infrastructure, Yakama Nation Environmental Management Program expertise, University of Washington community-based research studies on sensors, and university experience with community-engaged research practice.
- The key voices in the project advisory committee included school administration, El Proyecto Bienestar (an engagement program with the local immigrant population), Yakama Nation Environmental

Management Program, Indian Health Service, Tribal Healthy Homes Network, EnvironMentors, and teams from the University of Washington and Heritage University.

- The partners learned that it is important to define roles and meet in person to develop relationships and engage the community. Moving toward an authentic collaborative partnership must include the incorporation of elements of partnership and project sustainability throughout the project, promotion of community partner involvement in budget decision making, acknowledgement and application of community knowledge and expertise, establishment of roles that reflect community partner capacity-building goals, and recognition of community diversity and dynamics to promote representation.
- Project outcomes that resulted from working with the EnvironMentors Program included air quality curriculum and student research projects, community engagement and student research communication, and interviews on collaboration. Project outcomes resulting from the partnership with the Yakama Nation included a strengthened relationship with the tribe's Environmental Management Program, an understanding the sources of particulate matter in the region, the application of low-cost sensors, and the establishment of air-quality research activities examining indoor and outdoor particulate matter concentrations and sources. Several articles have been published related to this project, and researchers have shared about their work at a number of tribal and regional conferences and meetings.
- Orly described several studies undertaken within the research project. The University of Washington and the Yakama Nation Environmental Management Program partnered to assess localized sources of particulate matter with low-cost monitors and conventional black carbon monitors. Another study confirmed the necessity of calibration for effective use of low-cost sensors and the importance of considering wildfire smoke. A study currently in progress involves sampling indoor and outdoor air during winter with both gold-standard particulate matter sampling techniques and low-cost sensors.
- David Charters asked about monitoring of particulate matter related to scrub-burning events. Orly responded that the team has not monitored for that specifically, but it would be interesting to conduct targeted monitoring near a location where this is expected. The project monitoring has been relatively generalized to date, making it difficult to discern the effects from specific sources. Catherine added that this is the type of application that low-cost sensors support. The data indicate a variety of sources of air pollution in the region, and these sensors can help to identify the types.
- Lon Kissinger asked whether the team collaborated with Region 10 air quality staff, who have been working on wood-smoke issues. Catherine explained that the team has provided updates on project progress to Region 10 staff, but they have not collaborated specifically. Lon asked whether the team had seen a correlation between particulate matter levels and hospitalizations. Catherine responded that the team had discussed examining hospital administrative data and determining how to make it translatable for broader application given the smaller population of the area.

Update: Collecting Examples of Indigenous Research Frameworks, Protocols and Methodologies

- The goal is to connect with each of the Regional Tribal Operations Committees (RTOCs) and EPA-Tribal Partnership Groups about this effort.
- Recent engagements about the TSC's effort occurred at the National Tribal Water Council on July 8 and the Region 8 RTOC meeting on August 3.
- Scheduled presentations include the TSC's "Birds of a Feather" session at the Tribal Lands and Environment Forum (TLEF) this week, and Neil's presentation to the Exchange Network Tribal Governance Group on September 9.

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- The project was previously introduced to the Region 6 RTOC and the Tribal Waste and Response Steering Committee; followup with these groups is necessary.
- The TSC plans to connect with the National Tribal Toxics Committee, Regions 7 and 9 RTOCs, and National Tribal Air Association in the fall. The TSC also may reach out to the National Tribal Caucus.
- The Region 2 equivalent of the RTOC will meet in November.

Announcements

- During the recent Region 9 RTOC meeting, Shasta was asked about the TSC's position on regulatory rollbacks occurring under the current presidential administration. Monica explained that it is outside the TSC's purview to take positions on regulatory matters. The National Tribal Caucus has raised this issue with the American Indian Environmental Office.
- Shasta has a pollution prevention grant and promised to distribute information about upcoming webinars.
- Lon will present about the EPA-Tribal Environmental Plans database that he has developed; he has connected with national efforts related to data management for EPA-Tribal Environmental Plans.
- Page Hingst will be presenting at TLEF about composting and also about the Tribal PFAS Working Group.
- The Exchange Network Tribal Governance Group and Institute for Tribal Environmental Professionals will be holding the 2020 Virtual Data Academy and Conference from October 26 through November 13. The academy training and conference will be split into two different virtual events. It will include skills building for tribes based on the needs that they expressed during the Network's recent tribal needs assessment effort. Registration is expected to open at the end of August.

Next conference call: September 21, 2020, 2:00–3:30 p.m. EDT